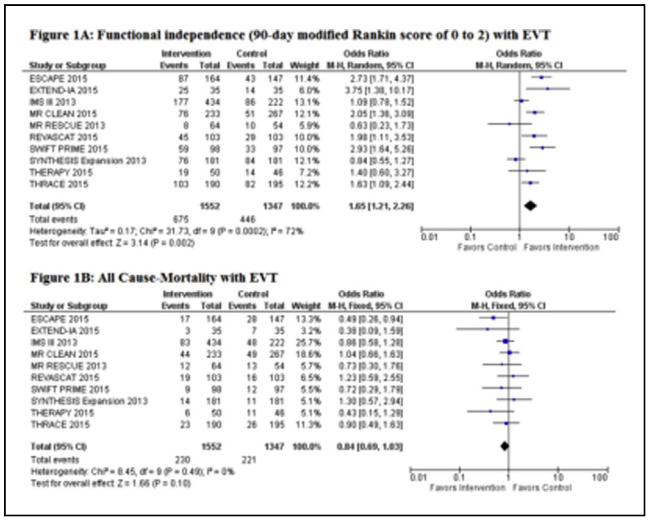
trials comparing the use of EVT with current standard of care - intravenous (IV) thrombolytics, for the treatment of AIS.

METHODS PubMed, Cochrane CENTRAL, EMBASE, EBSCO, Web of Science and CINAHL databases were searched from 1/01/1995-06/10/2015. We selected English language RCTs, comparing EVT plus IV tPA with IV tPA alone in eligible patients for treatment of AIS. Clinical endpoints of interest were good functional outcomes as represented by modified Rankin Scale (mRS) of 0-2, all-cause mortality, and symptomatic intracerebral hemorrhage (sICH).

RESULTS Ten randomized trials were included in our meta-analysis, which randomized 2,915 patients with large vessel, anterior circulation stroke. EVT significantly improved the rate of functional independence (90-day mRS of 0 to 2) when compared to IV thrombolytics [Odds ratio (OR) 1.65, 95% CI 1.21-2.26]. There was a non-significant trend of lower mortality with EVT (OR 0.84, 95% CI 0.69-1.03). The rate of sICH was not higher with EVT (OR 1.06, 95% CI 0.74-1.52).



CONCLUSIONS In recent trials with modern imaging and thrombectomy devices in patients with AIS, EVT significantly improved functional outcomes and was as safe as conventional intravenous thrombolytic therapy.

CATEGORIES ENDOVASCULAR: Stroke and Stroke Prevention

KEYWORDS Endovascular therapy, Stroke

TCT-762

Smartphone Based Applications Accurately Predict Rhythm Disturbances and Diagnose Silent Atrial Fibrillation

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BACKGROUND Use of smartphone-based applications for identifying rhythm disturbances has been suggested. However their practical use and appropriate utilization to screen for rhythm disorders in outpatient settings remains undefined.

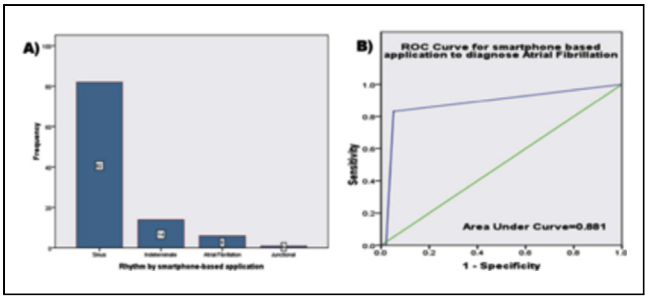
METHODS I evaluated 103 consecutive patients in outpatient cardiology clinics to identify underlying heart rhythm using smartphone-based electrocardiogram (ECG) application, subsequently validated by 12-lead ECG. Two cardiologists blinded to the rhythm diagnosis independently read both ECG tracings.

RESULTS Mean age was 62±15 years, 49 (47.6%) patients were males and 89% patients were Caucasians. Identification of underlying heart rhythm by smartphone-based application is shown in Figure 1-A, which accurately identified sinus rhythm from Atrial Fibrillation (AF) with sensitivity of 88%, specificity of 91% and positive predictive value of 98%. Comparison of rhythm by smartphone based application and 12-lead ECG showed an Intraclass correlation coefficient of 0.838 (95% Confidence Interval: 0.7860-0.890;p<0.001). Receiver operating characteristic curve for smartphone-based application to diagnose AF showed area under curve of 0.881.

Superiority of Alivecor For Identifying Sinus Rhythm and Atrial Fibrillation

Rhythm Analysis by Alivecor	Atrial Fibrillation (n=8)	Sinus rhythm (n=92)
Sensitivity	0.62	0.88
Specificity	0.98	0.91
Positive Predictive Value	0.83	0.98
Negative Predictive Value	0.96	0.47
Positive Likely hood ratios	59.37	9.68
Negative Likely hood ratios	0.37	0.13

CONCLUSIONS Smartphone-based ECG applications can accurately determine rhythm disturbances and diagnose silent AF in outpatient settings. In an era of evolving smartphones, such ECG applications may be of value in risk assessment, guiding therapy and preventing strokes.



CATEGORIES OTHER: Public Health Issues

KEYWORDS Arrhythmias

TCT-763

The efficacy and safety of double dose of clopidogrel without platelet monitoring in patients undergoing carotid artery stenting

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BACKGROUND Clopidogrel plays a central role in the treatment of patients undergoing carotid artery stenting (CAS). The inhibitory response to clopidogrel considerably varies among individuals and clopidogrel resistance is a risk factor for thrombotic events. Based on the platelet aggregation evaluated by the VASP analysis, the present study compared the outcome after carotid stenting guided with optimal clopidogrel dose adjustment versus a groups treated with double dose of clopidogrel without platelet monitoring.

METHODS From January 2002 until January 2014, 176 consecutive patients underwent an elective carotid stenting. The first group was treated with clopidogrel, guided with VASP analysis and was compared with a control groups treated with double dose of clopidogrel without platelet monitoring. VASP phosphorylation was determined with Platelet VASP kits according to the manufacturer's instructions (Diagnostica Stago, Asnières, France). A first VASP-phosphorylation analysis was checked and considered safe if the platelet reactivity index was less than 55%. If not, additional 75 mg loading dose was control checked by another VASP-phosphorylation analysis.

RESULTS The study enrolled 176 patients. Of these, 130 patients were treated with clopidogrel guided with VASP analysis (group 1), and 46 treated with double dose of clopidogrel without platelet monitoring (group 2). At baseline, the clinical features and the procedural technique did not differ between the 2 groups. No additional gain of mortality, ischemic event, cumulative incidence of target lesions revascularization (TLR) or bleeding was obtained at 30 days, one-year and Three -years in Group 1 versus Group 2. VASP monitoring was not correlated to the occurrence of complications at one month and one-year follow up (OR (95% CI): 1.06 (0.27 - 4.19) p:0,93) ; OR (95% CI): 1.07(1.39 - 2.92) p: 0,9; respectively) .

CONCLUSIONS Patients undergoing CAS treated with double-dose clopidogrel have the same outcomes compared with a population treated with clopidogrel guided with VASP analysis. VASP monitoring is not associated with a lower incidence of death, ischemic event, cumulative incidence of TLR or bleeding after CAS. Vu : 15:31 Appareil photo

CATEGORIES ENDOVASCULAR: Stroke and Stroke Prevention